AMENDMENTS TO THE SPECIFICATION

Page 1, after the title, insert the following heading and paragraph:

CROSS REFERENCE TO RELATED APPLICATIONS

This application is a continuation of International Application No. PCT/EP02/11847 filed October 23, 2002, the disclosures of which are incorporated herein by reference, which claimed priority to German Patent Application No. 101 52 422.6 filed October 24, 2001, the disclosures of which are incorporated herein by reference, and is related to co-pending application U.S. serial number (Attorney Docket No. 1-25187), filed April 19, 2004.

Page 1, Line 4, insert the heading:

BACKGROUND OF THE INVENTION

Replace the paragraph beginning on Page 1, Line 9, with the following new paragraph:

Such a disc brake is known from WO88/04741, and corresponding U.S. Patent No. 4,793,447, both of which are incorporated by reference herein. The forces arising in this disc brake during a braking operation may be subdivided into clamping force (also known as axial force, transverse force or normal force) and peripheral force (also known as frictional force). The component of force introduced by a brake shoe into the brake disc at right angles to the plane of the brake disc is described as a clamping force. By peripheral force, on the other hand, is meant the component of force, which on account of the brake friction between a friction lining of the brake shoe and the brake disc acts in peripheral direction of the brake disc upon the brake shoe. By multiplying the peripheral force by the distance of the application point of the peripheral force from the axis of rotation of the wheels, the braking torque may be determined.

Replace the paragraph beginning on Page 2, Line 2, with the following new paragraph:

DE 196 39 686 A1, and corresponding U.S. Patent No. 6,059,379, both of which are incorporated by reference herein, describes such a disc brake equipped with force transducers. The disc brake possesses two force transducers, which are disposed in each case on a fastening screw, by means of which a caliper is connected to a vehicle-fixed holder. The force transducers are used to measure the peripheral force, which is taken into account by a control device of a not specifically described electromechanical wheel brake actuator when setting the clamping force.

Page 2, Line 8, insert the heading:

SUMMARY OF THE INVENTION

Replace the paragraph beginning on Page 6, Line 14, with the following new paragraph:

The invention has a great many possible areas of application. The advantages according to the invention are particularly pronounced in an electromotive vehicle brake system equipped with the disc brake according to the invention. ~~An embodiment of a disc brake according to the invention is described in detail below with reference to the accompanying diagrammatic drawings. The drawings show:~~ Other advantages of this invention will become apparent to those skilled in the art from the following detailed description of the preferred embodiment, when read in light of the accompanying drawings.

Page 6, Line 19, insert the heading:

BRIEF DESCRIPTION OF THE DRAWINGS

Page 6, Line 31, insert the heading:

DETAILED DESCRIPTION OF THE INVENTION

Replace the paragraph beginning on Page 7, Line 29, with the following new paragraph:

The spindle 28 may be coupled in various ways, e.g. by means of a ~~bottom tooth system~~ curved-tooth system, to the step-down gear, which is not shown in Fig. 1. In the case of a curved-tooth system, there is not just a rotationally fixed connection between spindle 28 and step-down gear but the spindle 28 is movable within a specific angular range about the longitudinal axis B. Transverse forces arising during the rotational motion of the spindle 28 may be reliably compensated in said manner.

Replace the paragraph beginning on Page 8, Line 4, with the following new paragraph:

Disposed coaxially with the spindle 28 and nut ~~40~~ 30 and radially at the inside of the spindle 28 and nut ~~40~~ 30 is a receiver 40 for a force transducer 42. The receiver 40 is fastened by means of an annular mounting 44 to the nut 30. A radially outer end 45 of the mounting 44 embraces an end of the nut 30 facing the brake shoes 12, 14. A radially inner, flange-like region 46 of the mounting 44 is fastened to the receiver 40.

Replace the paragraph beginning on Page 9, Line 12, with the following new paragraph:

If, starting from the inoperative position of the disc brake 10 illustrated in Fig. 1, the electric motor not shown in Fig. 1 is set in operation in order to generate a clamping force, the step-down ~~thread~~ gear likewise not shown in Fig. 1 transmits a rotational motion of the electric motor to the spindle 28 of the actuator device 26. For generation of a clamping force, the direction of rotation of the spindle 28 is selected in such a way that the nut 30 interacting with the spindle 28 is moved in Fig. 1 to the right.

Replace the paragraph beginning on Page 9, Line 29, with the following new paragraph:

The brake shoe 12 is therefore taken up by the translational motion of the piston 52 and pressed in the direction of the arrow A against the brake disc 16. Owing to the disc brake 10 being structurally designed as a floating-caliper disc brake, as a reaction to the pressing of the brake shoe 12 against the brake disc 16 the opposite brake shoe 14 is also pressed in the direction of the arrow A' against the brake disc ~~20~~ 16. In said manner, a clamping force acting in the direction of the arrows A, A' is generated.

Replace the paragraph beginning on Page 10, Line 4, with the following new paragraph:

In accordance with the physical principle actio = reactio, the generation of the clamping force results in the retroaction of a reactive force along a first force transmission path C from the brake shoe 12 to the actuator device 26. The first force transmission path C comprises the force transmission device 50 in the form of the piston 52 and the reaction element 54, the force transducer 42, its receiver 40, the mounting for the receiver 40, as well as the nut 30. The reactive force transmitted by the piston 52 to the reaction element 54 is transmitted by the reaction element 54, which interacts two-dimensionally with the diaphragm 62 of the force transducer 42, to the force transducer 42. The diaphragm 62 is therefore displaced in Fig. 1 to the left, as is the force transmission device ~~52~~ 50. As the pot-shaped housing 60 of the force transducer 42 is firmly anchored in the receiver 40, the housing 60 is unable to follow this displacement of the diaphragm 62. The pressure inside the chamber 64 of the force transducer 42 consequently increases. A force-to-pressure conversion therefore occurs. The pressure increase inside the chamber 64 is converted by the pressure-to-resistance transducer 66 disposed in the chamber 64 into a resistance change. The resistance variation in turn allows a conclusion to be drawn about the reactive force transmitted along the first force transmission path C and is evaluated by a closed-loop control circuit, which is connected by means of the electric feeders 68 to the pressure-to-resistance transducer 66, and used for closed-loop control purposes.

Replace the paragraph beginning on Page 10, Line 32, with the following new paragraph:

As already explained, the reaction element 54 and the diaphragm 62 are also taken up by this leftward displacement of the piston 52. As a result of the leftward displacement of the piston 52 relative to the receiver 40, the play between the diameter enlargement 56 and the stop in the form of inside diameter reduction 57 formed on the receiver 40 is gradually used up. At the same time, the reaction element 54 elastically deforms into the groove 58 formed in the region of the guide 48 for the force transmission device ~~52~~ 50 since the oil disposed in the chamber 64 sets up an increasing resistance to a displacement of the diaphragm 62 in Fig. 1 to the left. The elastic deformation of the reaction element 54 into the groove 58 hampers further displacement of the reaction element 54 in Fig. 1 to the left. This prevents an excessively high retroactive force from acting upon the diaphragm 62 and damaging it.

Page 14, after Line 15, insert the following new paragraph:

In accordance with the provisions of the patent statutes, the principle and mode of operation of this invention have been explained and illustrated in its preferred embodiments. However, it must be understood that this invention may be practiced otherwise than as specifically explained and illustrated without departing from its spirit or scope.

Page 15, Line 2, insert the following introductory phrase:

What is claimed is:

Page 19, Line 1, delete the heading Abstract *and insert the heading:*

ABSTRACT OF THE DISCLOSURE

Page 19, Line 10, delete (Fig. 1).